

CLAIMS

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- 5 1. The use of formulations containing at least 1 % by weight, based on the formulation as a whole, of at least one polysiloxane for lubricating conveyor belt installations in the food industry, the formulations being applied to the conveyor belt installations directly, i.e. without dilution with water in the food factory, via an application system.
2. The use claimed in claim 1, characterized in that the application system is in direct contact with the surfaces to be lubricated during application.
- 10 3. The use claimed in claim 1, characterized in that a spray applicator is used as the application system
4. The use claimed in any of claims 1 to 3, characterized in that the formulations additionally contain at least one component selected from fluorine and polyhydroxy compounds and/or ethers and esters thereof.
- 15 5. The use claimed in claim 4, characterized in that a fluorine compound selected from the groups of
- a) perfluorinated or partly fluorinated monomeric organic compounds,
- b) pure and mixed dimers and oligomers based on at least one perfluorinated or partly fluorinated organic monomer,
- 20 c) pure and mixed polymers based on at least one perfluorinated or partly fluorinated organic monomer
- is present.
6. The use claimed in claim 4 or 5, characterized in that at least one component selected from from polyhydric alcohols, preferably alkanediols or alkanetriols, and the polyethers derived therefrom and from carbohydrates, preferably glucose, arabinose, ribulose, fructose and the oligo- and/or polysaccharides derived therefrom and esters and ethers thereof is present as the polyhydroxy compound.
- 25 7. The use claimed in claim 6, characterized in that glycerol at least is present as the polyhydroxy compound.
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8. The use claimed in any of claims 1 to 7, characterized in that the formulations are present in the form of a one-component liquid, solution, gel, emulsion, paste or dispersion.

9. The use claimed in any of claims 1 to 8, characterized in that the formulations additionally contain at least one antimicrobial component selected from the groups of alcohols, aldehydes, antimicrobial acids, carboxylic acid esters, acid amides, phenols, phenol derivatives, diphenyls, diphenyl alkanes, urea derivatives, oxygen and nitrogen acetals and formals, benzamides, isothiazolines, phthalimide derivatives, pyridine derivatives, antimicrobial surface-active compounds, guanidines, antimicrobial amphoteric compounds, quinolines, 1,2-dibromo-2,4-dicyanobutane, iodo-2-propynyl butyl carbamate, iodine, iodophors, peroxides.

10. The use claimed in claim 9, characterized in that the formulations contain one or more compounds selected from ethanol, n-propanol, i-propanol, butane-1,3-diol, phenoxyethanol, 1,2-propylene glycol, glycerol, undecylenic acid, citric acid, 2-benzyl-4-chlorophenol, 2,2'-methylene-bis-(6-bromo-4-chlorophenol), 2,4,4'-trichloro-2'-hydroxydiphenyl ether, N-(4-chlorophenyl)-N-(3,4-dichlorophenyl)-urea, N,N'-(1,10-decanediyl-di-1-pyridinyl-4-ylidene)-bis-(1-octaneamine) dihydrochloride, N,N'-bis-(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecane diimidoamide, quaternary ammonium compounds or alkyl amines, guanidines, amphoteric surfactants as antimicrobial components.

11. The use claimed in any of claims 1 to 10, characterized in that the formulations contain additional components selected from the groups of surfactants and solubilizing agents.

12. The use claimed in any of claims 1 to 11, characterized in that, by comparison with conventional lubricants which are diluted with water by a factor of more than 100 in automatic conveyor installations, the formulations according to any of claims 1 to 12 reduce the frictional resistance between the conveyor and the containers transported thereon

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by more than 20% by for the same quantities by weight of active lubricating components applied to the conveyor installation over a certain period of time.

5 13. The use claimed in ~~any of claims 1 to 12~~ for the conveying of plastic containers.

14. The use claimed in claim 13, characterized in that the plastic containers contain at least one polymer selected from the groups of polyethylene terephthalates (PET), polyethylene naphthenates (PEN), polycarbonates (PC), PVC.

10 15. The use claimed in claim 14, characterized in that the plastic containers are PET bottles.

16. The use claimed in ~~any of claims 1 to 12~~ for the conveying of paperboard packs.

15 17. The use claimed in ~~any of claims 1 to 16~~, characterized in that the conveying surfaces of the conveyor system are made of plastic.

18. The use claimed in ~~any of claims 1 to 16~~, characterized in that the contact surfaces of the conveyor system are made of metal.

19. The use claimed in ~~any of claims 1 to 18~~, characterized in that additional antimicrobial agents are separately added during application.

20 20. The use claimed in claim 19, characterized in that an organic peracid, chlorine dioxide or ozone is used as the antimicrobial agent.

21. Chain lubricants which, based on the formulation as a whole, contain at least 1% by weight of at least one polysiloxane and, in addition, at least one polyhydroxy compound and/or an organic fluorine compound.

25 22. A chain lubricant as claimed in claim 21, characterized in that the sum total of polysiloxane and polyhydroxy compound and/or organic fluorine compound makes up at least 15% by weight of the formulation as a whole.

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